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NEWS	1		Web Page for STN Seminar Schedule - N. America
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NEWS	3	APR 15	WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats
NEWS	4	APR 28	EMBASE Controlled Term thesaurus enhanced
NEWS	5	APR 28	IMSRESEARCH reloaded with enhancements
NEWS	6	MAY 30	INPAFAMDB now available on STN for patent family searching
NEWS	7	MAY 30	DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option
NEWS	8	JUN 06	EPFULL enhanced with 260,000 English abstracts
NEWS	9	JUN 06	KOREAPAT updated with 41,000 documents
NEWS	10	JUN 13	USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications
NEWS	11	JUN 19	CAS REGISTRY includes selected substances from web-based collections
NEWS	12	JUN 25	CA/CAPLUS and USPAT databases updated with IPC reclassification data
NEWS	13	JUN 30	AEROSPACE enhanced with more than 1 million U.S. patent records
NEWS	14	JUN 30	EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations
NEWS	15	JUN 30	STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in
NEWS	16	JUN 30	STN AnaVist enhanced with database content from EPFULL
NEWS	17	JUL 28	CA/CAPLUS patent coverage enhanced
NEWS	18	JUL 28	EPFULL enhanced with additional legal status information from the epline Register
NEWS	19	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS	20	JUL 28	STN Viewer performance improved
NEWS	21	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS	22	AUG 13	CA/CAPLUS enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS	23	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS	24	AUG 15	CAPLUS currency for Korean patents enhanced
NEWS	25	AUG 25	CA/CAPLUS, CASREACT, and IFI and USPAT databases enhanced for more flexible patent number searching
NEWS	26	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS	27	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued

NEWS 28 SEP 25 CA/CAPLUS current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances  
 NEWS 29 SEP 26 WPIDS, WPINDEX, and WPIX coverage of Chinese and Korean patents enhanced  
 NEWS 30 SEP 29 IFICLS enhanced with new super search field  
 NEWS 31 SEP 29 EMBASE and EMBAL enhanced with new search and display fields  
 NEWS 32 SEP 30 CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
 AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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 DICTIONARY FILE UPDATES: 6 OCT 2008 HIGHEST RN 1057750-28-3

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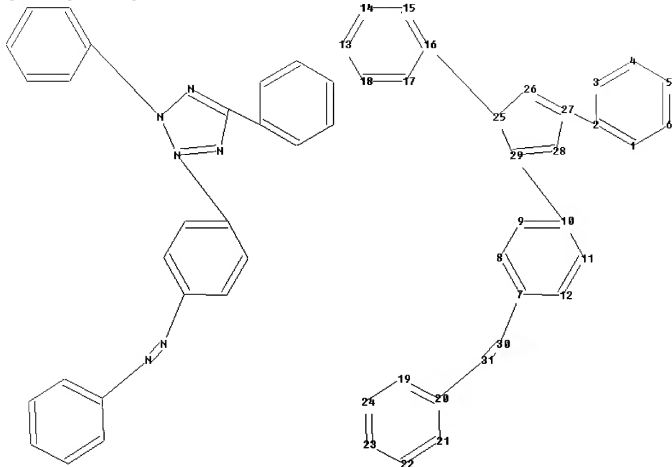
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chain nodes :

30 31

ring nodes :

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23  
24 25 26 27 28 29

chain bonds :

2-27 7-30 10-29 16-25 20-31 30-31

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15  
15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24 25-26 25-29 26-27  
27-28 28-29

exact/norm bonds :

7-30 10-29 16-25 20-31 25-26 25-29 26-27 27-28 28-29 30-31

exact bonds :

2-27

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-12 8-9 9-10 10-11 11-12 13-14 13-18 14-15  
15-16 16-17 17-18 19-20 19-24 20-21 21-22 22-23 23-24

isolated ring systems :

containing 1 : 7 : 13 : 19 : 25 :

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom  
22:Atom 23:Atom 24:Atom 25:Atom 26:Atom 27:Atom 28:Atom 29:Atom 30:CLASS  
31:CLASS

L1 STRUCTURE UPLOADED

=> d L1

L1 HAS NO ANSWERS

L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

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SINCE FILE

TOTAL

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FULL ESTIMATED COST

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1.13

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FILE COVERS 1907 - 7 Oct 2008 VOL 149 ISS 15

FILE LAST UPDATED: 6 Oct 2008 (20081006/ED)

Caplus now includes complete International Patent Classification (IPC) reclassification data for the second quarter of 2008.

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/legal/infopolicy.html>

=> s L1 SSS full

REGISTRY INITIATED

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Use DISPLAY HITSTR (or FHITSTR) to directly view retrieved structures.

FULL SEARCH INITIATED 08:01:52 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 82 TO ITERATE

100.0% PROCESSED 82 ITERATIONS  
SEARCH TIME: 00.00.01

41 ANSWERS

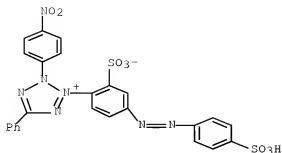
L2 41 SEA SSS FUL L1

L3 8 L2

=> d ibib abs hitstr 1-  
YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N):y

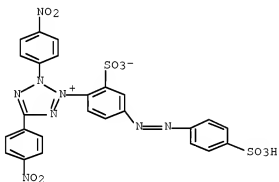
L3 ANSWER 1 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2007:1267503 CAPLUS Full-text  
DOCUMENT NUMBER: 147:517654  
TITLE: Total branched-chain-amino-acid/tyrosine mole ratio  
assay liquid reagent  
INVENTOR(S): Kimata, Shinsuke; Yoneda, Keizo  
PATENT ASSIGNEE(S): Toyobo Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokyo Koho, 29pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----		-----	-----	-----
	JP 2007289096	A	20071108	JP 2006-122045	20060426
PRIORITY APPLN. INFO.:				JP 2006-122045	20060426
AB	Provided are a total branched-chain-amino-acid (BCAA) assay reagent, a tyrosine (TYR) assay reagent and a total branched-chain-amino- acid/tyrosine mole ratio (BTY) assay reagent, which are stable for a long time in a solution state. The BCAA assay reagent is a reagent for assaying a total BACC using an enzyme, which is characterized in that a total BACC degradative enzyme (e.g., leucine dehydrogenase) and a chromogen (e.g., tetrazolium salt) with a reduced non-specific coloring are made coexisted, and the total BACC degradative enzyme and the chromogen are sep. formulated. The TYR assay reagent is a reagent for assaying TYR using an enzyme, which is characterized in that a TYR degradative enzyme and a metal salt are made coexisted. The BTY assay reagent is designed to calculate a BTY mole ratio using the BCAA assay reagent and the TYR assay reagent.				
IT	848122-82-7 848122-84-9 848122-85-0 RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses) (total branched-chain-amino-acid/tyrosine mole ratio enzymic assay liquid reagent)				
RN	848122-82-7 CAPLUS				
CN	2H-Tetrazolium, 2-(4-nitrophenyl)-5-phenyl-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt (CA INDEX NAME)				



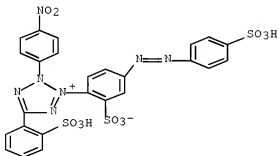
RN 848122-84-9 CAPLUS

CN 2H-Tetrazolium, 2,5-bis(4-nitrophenyl)-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt (CA INDEX NAME)



RN 848122-85-0 CAPLUS

CN 2H-Tetrazolium, 2-(4-nitrophenyl)-5-(2-sulfophenyl)-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt (CA INDEX NAME)



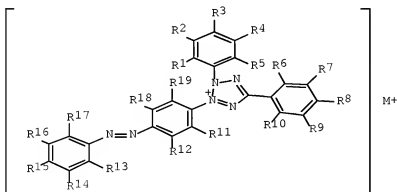
L3 ANSWER 2 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 2005:238971 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 142:312754

TITLE: Water-soluble tetrazolium compounds  
 INVENTOR(S): Fukuoka, Yuriko; Sakamoto, Ryo; Ishiyama, Munetaka  
 PATENT ASSIGNEE(S): Dojindo Laboratories, Japan  
 SOURCE: PCT Int. Appl., 24 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005023786	A1	20050317	WO 2004-JP9953	20040713
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2532211	A1	20050317	CA 2004-2532211	20040713
EP 1650197	A1	20060426	EP 2004-747419	20040713
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1823049	A	20060823	CN 2004-80020013	20040713
US 20070111274	A1	20070517	US 2006-563702	20060105
PRIORITY APPLN. INFO.:			JP 2003-273982	A 20030714
			WO 2004-JP9953	W 20040713
OTHER SOURCE(S):		MARPAT 142:312754		
GI				



I

AB Water-soluble tetrazolium compds. suited for determining a dehydrogenase or an hydrogenase substrate (e.g., NADH) are provided, each of which is able to form a formazan exhibiting an optical absorption at a long-wavelength, and is

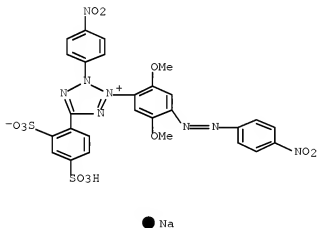
excellent in long-term stability in an aqueous solution. The water-soluble tetrazolium compds. are represented by the general formula (I). In I, R1 to R19 are each independently a hydrogen atom, a nitro group, a sulfo group, or an alkyl group, an alkoxy group, sulfoalkyl group, or a sulfoalkyloxy group having 1 to 4 carbon atoms, with the proviso that at least two of R to R19 are each independently a sulfo group, or a sulfoalkyl group or a sulfoalkyloxy group having 1 to 4 carbon atoms; and M is an alkali metal or ammonium.

IT 847986-46-3P 847986-47-4P 847986-48-5P  
847986-49-6P 847986-50-9P 847986-51-0P  
847986-52-1P

RL: ARG (Analytical reagent use); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)  
(water-soluble tetrazolium compds. for determining dehydrogenase)

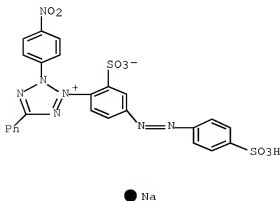
RN 847986-46-3 CAPLUS

CN 2H-Tetrazolium, 3-[2,5-dimethoxy-4-[2-(4-nitrophenyl)diazenyl]phenyl]-5-(2,4-disulfophenyl)-2-(4-nitrophenyl)-, inner salt, sodium salt (1:1) (CA INDEX NAME)



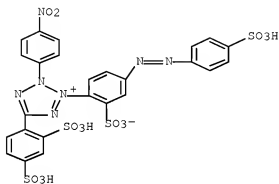
RN 847986-47-4 CAPLUS

CN 2H-Tetrazolium, 2-(4-nitrophenyl)-5-phenyl-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)



RN 847986-48-5 CAPLUS

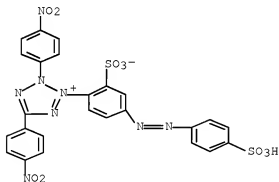
CN 2H-Tetrazolium, 5-(2,4-disulfophenyl)-2-(4-nitrophenyl)-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt, sodium salt (1:3) (CA INDEX NAME)



●3 Na

RN 847986-49-6 CAPLUS

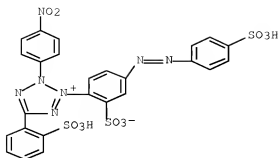
CN 2H-Tetrazolium, 2,5-bis(4-nitrophenyl)-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 847986-50-9 CAPLUS

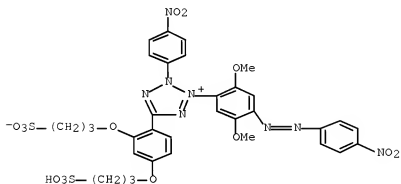
CN 2H-Tetrazolium, 2-(4-nitrophenyl)-5-(2-sulfophenyl)-3-[2-sulfo-4-[2-(4-sulfophenyl)diazenyl]phenyl]-, inner salt, sodium salt (1:2) (CA INDEX NAME)



● 2 Na

RN 847986-51-0 CAPLUS

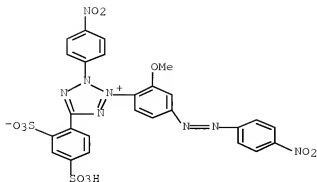
CN 2H-Tetrazolium, 5-[2,4-bis(3-sulfopropoxy)phenyl]-3-[2,5-dimethoxy-4-[2-(4-nitrophenyl)diazenyl]phenyl]-2-(4-nitrophenyl)-, inner salt, sodium salt (1:1) (CA INDEX NAME)



● Na

RN 847986-52-1 CAPLUS

CN 2H-Tetrazolium, 5-(2,4-disulfophenyl)-3-[2-methoxy-4-[2-(4-nitrophenyl)diazenyl]phenyl]-2-(4-nitrophenyl)-, inner salt, sodium salt (1:1) (CA INDEX NAME)



● Na

REFERENCE COUNT: 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:424618 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 63:24618

ORIGINAL REFERENCE NO.: 63:4421h,4422b-f

TITLE: Influence of the azo group on the cytochemical properties of ditetrazolium

AUTHOR(S): Raikhlin, N. I.; Ostrovskaya, V. M.; Pryanishnikov, A. A.

SOURCE: Tsitologiya (1965), 7(1), 116-20

CODEN: TSITAQ; ISSN: 0041-3771

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

AB An anal. pure form of ditetrazolium with an azo group, called azotetrazolium (I) was prepared (4-H2NC6H4N:)2 (2.28 g.) was dissolved at -2° in 20 ml. H2O, followed by addition of 5 ml. concentrated HCl and 5 ml. H2O, containing 1.38 g. Na2NO2. The diazo compound obtained was coupled at -2° with PhNHN:C(Ph)CO2H and dissolved in a mixture of 11 g. anhydrous Na2CO3 and 100 ml. H2O. The reaction mixture was stirred 2 hrs., left standing overnight, and the black, finely dispersed product filtered and washed with 400 ml. distilled H2O and boiling MeOH. The product (3.8 g.) was dried at 95°, transferred into 300 ml. HCONMe2, stirred, and filtered. The black precipitate on the filter was washed with 550 ml. MeOH and dried to give 1.70 g. azodiformazan ([p-(PhNHN:CPhN:N)C6H4N:] (II)), a black powder which did not melt at 350°, was easily soluble in tetrahydrofuran, less easily in HCONMe2, C6H6, and CCl4, and insol. in MeOH, EtOH, and glycerol. II (1.62 g.) was dissolved in a mixture of 24 ml. tetrahydrofuran and 24 ml. dioxane. After cooling to 0°, 1.9 ml. iso-AmNO2 (III) was added to the solution and dry HCl passed through it till the medium was slightly acidic. After 2-3 days, 1 ml. III was added and HCl passed through slowly again. On the 3rd day, when the reaction mixture became colorless, it was filtered, the precipitate extracted twice with boiling MeOH, and an orange product precipitated from the extract with a ten-fold amount of ether and filtered. The filtrate was evaporated under an ir lamp at 60° to a small volume, cooled to 0°, and the orange precipitate filtered. The combined ppts. (0.63g.) were dissolved in 700 ml. distilled H2O at 80°. The undissolved portion was discarded and the aqueous solution dried by evaporation under an ir lamp at 70°. The product

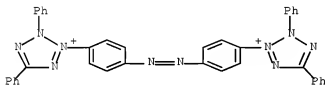
was reprecipitated 2 times with ether from alc. solution and dried at 60° to give 0.41 g. I, an orange-cinnamon powder, very soluble in H<sub>2</sub>O, forming a light yellow solution. In histochem. tests I surpassed neotetrazolium and nitrotetrazolium blue in a number of properties. It is more sensitive to reduction than the former two, is insol. in lipids, is not affected by 96% EtOH in processing specimens, and does not form aggregates or crystals.

IT 2093-14-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 2093-14-3 CAPLUS

CN 2H-Tetrazolium, 3,3'-(azodi-4,1-phenylene)bis[2,5-diphenyl-, dichloride (9CI) (CA INDEX NAME)



● 2 Cl-

L3 ANSWER 4 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:424617 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 63:24617

ORIGINAL REFERENCE NO.: 63:4421f-h

TITLE: Absorption spectrum of dyes. IX. Electronic spectra of a 1:1 and a 1:2 complex, and CT-bands

AUTHOR(S): Hoshi, Toshihiko; Tanizaki, Yoshie; Ando, Noboru

CORPORATE SOURCE: Inst. Technol., Tokyo

SOURCE: Bulletin of the Chemical Society of Japan (1965), 38(5), 725-9

CODEN: BCSJA8; ISSN: 0009-2673

DOCUMENT TYPE: Journal

LANGUAGE: English

AB cf. CA 64, 1353h. The absorption spectra were determined at room temperature in the wavelength region 220-700 mμ. Mixed solns. of 2 concns. were prepared, one containing 10-5mole/l. of a partner dye (P) with an equal concentration of Chrysophenine G(G), and the other with the same concentration of P and 2-9 times the concentration of G. The absorption spectra of the PG and PG2 species were determined by calcn. and were compared with the corresponding additive spectra (P + G and P + 2G), and the correlations among these spectra are discussed in detail. The mol. orbital (MO) pattern of the G mol. has been calculated empirically by applying Platt's theory; similarly, that of the P mol. has been calculated by assuming that there is ≥1 symmetry species. The spectral change caused by complex formation could be explained in relation to the MO's of the component mols. The existence of an intermol. charge transfer from P as an electron donor to G as an acceptor has been confirmed. The first band of a disazo dye (P) consists of 2 electronic transitions, one a π → π\* (shorter wavelength) and the other an n → π\* (longer wavelength) transition.

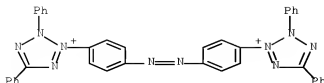
IT 2093-14-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 2093-14-3 CAPLUS

CN 2H-Tetrazolium, 3,3'-(azodi-4,1-phenylene)bis[2,5-diphenyl-, dichloride

(9CI) (CA INDEX NAME)



● 2 Cl<sup>-</sup>

L3 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1965:74191 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 62:74191

ORIGINAL REFERENCE NO.: 62:13139d-f

TITLE: Oxadiazole derivatives. II. Mercuration of phenyl derivatives of 1,3,4-oxadiazole and their behavior in some electrophilic substitutions

AUTHOR(S): Shvaika, O. P.; Klimisha, G. P.

CORPORATE SOURCE: All-Union Res. Inst. Monocrystals, Kharkov

SOURCE: Zhurnal Obshchei Khimii (1965), 35(2), 290-3

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

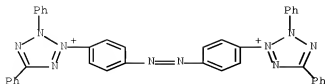
AB cf. CA 55, 21103e; 61, 8298f. 2-Phenyl-1,3,4-oxadiazole refluxed with Hg(OAc)<sub>2</sub> in PrOH 0.5 hr. gave bis(2-phenyl-1,3,4-oxadiazol-5-yl)mercury, m. 295-7° (C<sub>6</sub>H<sub>6</sub>); the filtrate gave 2-phenyl-1,3,4-oxadiazol-5-ylmercuric acetate (I), m. 197-8°. Mercuration in BuOH gave similar results. Mercuration failed in AcOH. I brominated in (CH<sub>2</sub>Cl)<sub>2</sub> at room temperature, finally at reflux, gave 2-phenyl-5-hydroxy-1,3,4-oxadiazole, m. 135.5-6.5°, after passage over Al<sub>2</sub>O<sub>3</sub> in unspecified solvent. I and iodine in (CH<sub>2</sub>Cl)<sub>2</sub> gave mixed 2-phenyl-5-hydroxy- (II) and 2-phenyl-5-iodo-1,3,4-oxadiazoles, m. 107-9°; treated with H<sub>2</sub>O, the mixture gave II, m. 135°. 2,5-Diphenyl-1,3,4-oxadiazole and Br in AcOH or CCl<sub>4</sub> gave a complex with Br<sub>2</sub>, m. 157-9°, from which aqueous EtOH gave the original oxadiazole. No reaction of this with AcCl in the presence of AlCl<sub>3</sub> could be accomplished. The passive nature of the phenylated oxadiazole ring is ascribed to formation of oxadiazolium cation.

IT 2093-14-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 2093-14-3 CAPLUS

CN 2H-Tetrazolium, 3,3'-(azodi-4,1-phenylene)bis[2,5-diphenyl-, dichloride (9CI) (CA INDEX NAME)



●2 Cl<sup>-</sup>

L3 ANSWER 6 OF 8 CAPLUS COPYRIGHT 2008 ACS on SIN

ACCESSION NUMBER: 1965:74190 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 62:74190

ORIGINAL REFERENCE NO.: 62:13139b-d

TITLE: Synthesis and polarographic reduction of azotetrazolium

AUTHOR(S): Ostrovskaya, V. M.; Davydovskaya, Yu. A.; Pryanishnikov, A. A.; Vainshtein, Yu. I.; Dziomko, V. M.

SOURCE: Zhurnal Obshchei Khimii (1965), 35(2), 230-5

CODEN: ZOKHA4; ISSN: 0044-460X

DOCUMENT TYPE: Journal

LANGUAGE: Russian

GI For diagram(s), see printed CA Issue.

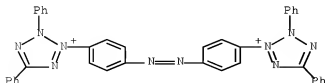
AB Stirring 440 ml. 25% NH<sub>4</sub>OH, 36 g. p-O<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>NHAc, 58 g. Zn dust, 0.08 g. H<sub>2</sub>PtCl<sub>6</sub> in H<sub>2</sub>O and 500 ml. MeOH 5 days gave after extraction of the precipitate with hot MeOH, 39% yellow 4,4'-azoacetanilide, m. 290-3°, which refluxed 2 hrs. with alc. KOH gave 90% orange-yellow 4,4'-azoaniline, m. 250-1°. This in aqueous HCl was treated with aqueous NaNO<sub>2</sub> at -2°, filtered and treated with PhNHN:CPHCO<sub>2</sub>H in aqueous Na<sub>2</sub>CO<sub>3</sub> at 0° at pH 9; on the following day the crude product was extracted with hot H<sub>2</sub>O and MeOH, then with Me<sub>2</sub>NCHO, and gave a 26% residual black I, does not m. 350°. I in dioxane-tetrahydrofuran was treated at 0° with iso-AmONO and dry HCl over 3 days and gave after extraction with hot MeOH 21% brown-orange II, decomposed 225-30°. Polarographic data of these compds. were reported and it was shown thereby that the azo group increased the electron-acceptor ability of the ditetrazolium structure in polarographic reduction

IT 2093-14-3

(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 2093-14-3 CAPLUS

CN 2H-Tetrazolium, 3,3'-(azodi-4,1-phenylene)bis[2,5-diphenyl-, dichloride (9CI) (CA INDEX NAME)



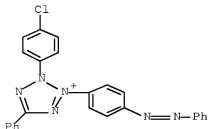
●2 Cl<sup>-</sup>

ACCESSION NUMBER: 1957:2060 CAPLUS  
 DOCUMENT NUMBER: 51:2060  
 ORIGINAL REFERENCE NO.: 51:4891,490a-i,491a  
 TITLE: Tetrazolium compounds  
 INVENTOR(S): Slack, Ronald; Nineham, Alan W.; Davis, Brenda M.  
 PATENT ASSIGNEE(S): May & Baker Ltd.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Unavailable  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
	GB 738585		19551019	GB 1952-18148	19520717
AB	<p>             Tetrazolium salts with therapeutic activity may be prepared by the following procedures: (A) 4,1-PhN:NC10NNHNCPh:NNHPh (4 g.) (I), 100 cc. CHCl<sub>3</sub>, and 4.5 g. Ph(OAc)<sub>4</sub> refluxed 30 min. and evaporated, the residue treated with excess dilute HCl and AmOH, and the organic layer washed with H<sub>2</sub>O, dried, and evaporated yielded crude 2,5-diphenyl-3-(4-phenylazo-1-naphthyl)tetrazolium (II) chloride; KI and II chloride in hot H<sub>2</sub>O gave II iodide, small orange needles, m. 180° (decomposition, from dilute EtOH). (B) 4-(4-ClC<sub>6</sub>H<sub>4</sub>N:N)C<sub>6</sub>H<sub>4</sub>NNHNCPh:NNHPh, m. 194.5-5.0° (5 g.), 15 g. yellow HgO, and 50 cc. MeOH refluxed 30 min., filtered, acidified to litmus with dilute HCl, filtered through Hyflo Supercel, and evaporated yielded 2,5-diphenyl-3-[4'-(4'-chlorophenylazo)phenyl]tetrazolium chloride (III), m. 184-5° (decomposition, from EtOH-Et<sub>2</sub>O). (C) 4-(4-HOC<sub>6</sub>H<sub>4</sub>N:N)C<sub>6</sub>H<sub>4</sub>NNHNCPh:NNHPh, m. 193-4° (from EtOH) (10 g.), 200 cc. EtOH, and 10 cc. iso-AmONO treated 30 min. with HCl at 0° and stirred into 1 l. H<sub>2</sub>O, the H<sub>2</sub>O decanted, the dark tarry residue in MeOH treated with carbon and filtered, and Et<sub>2</sub>O added precipitated the orange-red 4''-HO analog (IV), m. 230° (decomposition, from MeOH-Et<sub>2</sub>O), of III. IV (1.75 g.) and 0.9 g. Ag isethionate in 25 cc. dry EtOH yielded the isethionate analog, m. 218-19° (decomposition, from H<sub>2</sub>O), of IV. 2,5-Diphenyl-3-(2,5-dimethyl-4-phenylazophenyl)tetrazolium chloride-3H<sub>2</sub>O, m. 65°, was prepared from the formazan (V), m. 197°. p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>N:NPh.HCl (17.25 g.) in 11.2 cc. HCl and 25 cc. H<sub>2</sub>O diazotized at 0-5° with 5.25 g. NaNO<sub>2</sub> in 10 cc. H<sub>2</sub>O, 20 cc. EtOH added, the mixture gradually stirred into 9.8 g. PhCH:NNHPh (VI) in 100 cc. C<sub>5</sub>H<sub>5</sub>N, the whole stirred 3 hrs. at 0.5° and warmed to 25°, the precipitate washed with dilute HCl, H<sub>2</sub>O, and EtOH and boiled with 100 cc. EtOH, and the mixture cooled and filtered gave 4-PhN:NC<sub>6</sub>H<sub>4</sub>NNHNCPh:NNHPh, purplish black needles from Me<sub>2</sub>CO-H<sub>2</sub>O, m. 182° (decomposition); crude IX was used to prepare the tetrazolium iodide, m. 231-2° (decomposition, from MeOH), by method A. 4,1-PhN:NC10H<sub>6</sub>NH<sub>2</sub> (26.7 g.) with NaNO<sub>2</sub> in HOAc and H<sub>2</sub>SO<sub>4</sub> slowly stirred into 19.6 g. VI in 600 cc. C<sub>5</sub>H<sub>5</sub>N below 10°, H<sub>2</sub>O added, and the precipitate washed and dried yielded I, purple needles from CHCl<sub>3</sub>, m. 190-2°. V, m. 197° (from EtOAc), was similarly prepared 4-PhN:NC<sub>6</sub>H<sub>4</sub>NNHNC(C<sub>6</sub>H<sub>4</sub>OAc-4):NNHPh, m. 191° (from p-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>N:NPh and p-AcOC<sub>6</sub>H<sub>4</sub>CH:NNHPh), with 0.2N NaOH in dilute EtOH gave the HO analog, C<sub>25</sub>H<sub>22</sub>N<sub>6</sub>O, m. 181°; the tetrazolium chloride, m. 267°. 4-HOC<sub>6</sub>H<sub>4</sub>N:NC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub>-4 (53 g.) in 255 cc. HCl with 17.5 g. NaNO<sub>2</sub> and coupled with 90 g. 4-Ime3NC<sub>6</sub>H<sub>4</sub>CH:NNHPh in 500 cc. C<sub>5</sub>H<sub>5</sub>N gave 4-ClMe3NC<sub>6</sub>H<sub>4</sub>CH:(NNHPh)NNHNC<sub>6</sub>H<sub>4</sub>OH-4, m. 172-3° (decomposition), containing a small amount of the iodide; the tetrazolium chloride, C<sub>20</sub>H<sub>23</sub>Cl<sub>2</sub>N<sub>5</sub>O, m. 211-12° (decomposition, from MeOH-Et<sub>2</sub>O). p-AcOC<sub>6</sub>H<sub>4</sub>CHO (22 g.) and 36 g. finely powdered "4-phenylazophenylhydrazine β-sulfonic acid" (VII) [Troger and Franke, [Arch. Pharm. 244,307(1906)] in 100 cc. HOAc allowed to stand overnight and the purple product and excess NaOAc in ice water made just alkaline with dilute NH<sub>4</sub>OH gave 4-AcO C<sub>6</sub>H<sub>4</sub> CH:NNHNC<sub>6</sub>H<sub>4</sub>N:NPh-4, m. 161-2° (from           </p>				

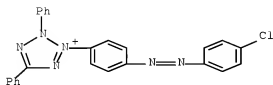
C6H6); this (6 g.) in 100 cc. C5H5N and 4-ClN2C6H4CH:CHPh (VIII) (from 4 g. in 14 cc. 50% HCl) yielded 4-PhN:NC6H4NHNHC(C6H4OAc-4):NNHC6H4CH:CHPh-4, m. 220-1° (from C6H6); the tetrazolium chloride, m. 215-16° (from Me2CO-Et2O). p-HO2CC6H4CHO (7.5 g.) and 14.8 g. VII in 150 cc. warm HOAc similarly yielded 4-PhN:NC6H4NHN:CHC6H4CO2NH4-4, bright orange microcrystals, m. 245°; this and VIII gave 4-PhN:NC6H4NHNHC(C6H4CO2H-4):NNHC6H4CH:CHPh-4, (XVII), m. 239-40° [the tetrazolium chloride, m. 195-6° (decomposition, from EtOH)]. The following 4-RC6H4NHNHC(R') : NNHC6H4N:NR''-4 (IX) and the corresponding tetrazolium salts (X) were prepared [R, R', R'', procedure, anion of X, m.p. of IX, and m.p. (decomposition) of X given]: H, Ph, 4-O2NC6H4, A, Cl (dihydrate), 210° (decomposition), variable; Cl, Ph, Ph, A, I, 168-70°, 218° (decomposition); AcNH, Ph, Ph, A, I, 215°, 258° (decomposition); H, Me, Ph, A, I, 110°, 127-9° (from EtOH-Et2O); H, Ph, 4-MeC6H4, B, I, 186-8°, 175-7° (decomposition); HO2C, Ph, Ph, B, Cl, 209°, 164° (decomposition); H, Ph, 2,4-Cl(HO)C6H3, C, Cl, 149-50°, 204-5° (decomposition); H, Ph, 3,4-Cl(HO)C6H3, C, Cl, 205-10°, 206-7° (decomposition). The following 4-RC6H4NHNHC(R') : NNHC6H4:CHR''-4 were prepared: H, Ph, Ph, B, Cl (isethionate analog, m. 181°; H sulfate analog, m. 169-71°), 225° (from EtOAc), 228-9° (decomposition, from H2O); H, Ph, 4-AcNHC6H4, B, I (monohydrate), 208-9°, 244° (decomposition); H, Ph, 4-BrC6H4, B, Cl (monohydrate), 186-7°, 216-17° (decomposition); H, Ph, 4-HOC6H4, B, I, 175-6°, 272° (decomposition); H, 4-BrC6H6, Ph, B, I, 170-1° (decomposition), 206° (decomposition); H, 4-MeOC6H4, Ph, B, I, 157-8°, 167-8° (decomposition); H, Ph, 4-O2NC6H4, B, Cl (dihydrate), 185-6°, 233-4° (decomposition); H, Me, Ph, B, I (hemihydrate), 160-2° (decomposition), 169-71°; H, Me, 4-O2NC6H4, B, I, 182-3°, 222-3° (decomposition); PhN:N, Ph, Ph, B, I, -, 172-6° (decomposition, from EtOH).

- IT 116951-93-0P, Tetrazolium, 2-(p-chlorophenyl)-5-phenyl-3-(p-phenylazophenyl)-2H-, iodide 118951-88-5P, Tetrazolium, 3-[p-(p-chlorophenylazo)phenyl]-2,5-diphenyl-2H-, chloride 121655-17-2P, Tetrazolium, 3-[p-[2-chloro-4-hydroxyphenylazo]phenyl]-2,5-diphenyl-2H-, chloride 121655-52-5P, Tetrazolium, 3-[p-[3-chloro-4-hydroxyphenylazo]phenyl]-2,5-diphenyl-2H-, chloride 122803-26-3P, Tetrazolium, 2,5-diphenyl-3-(p-phenylazophenyl)-2H-, iodide 122803-35-4P, Tetrazolium, 5-(p-hydroxyphenyl)-2-phenyl-3-(p-phenylazophenyl)-2H-, chloride 124202-33-1P, Tetrazolium, 2-(p-carboxyphenyl)-5-phenyl-3-(p-phenylazophenyl)-2H-, chloride 860224-83-5P, Tetrazolium, 2,5-diphenyl-3-(p-2,5-xylylazophenyl)-2H-, chloride  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 118951-83-0 CAPLUS  
 CN 2H-Tetrazolium, 2-(4-chlorophenyl)-5-phenyl-3-[4-(2-phenyldiazanyl)phenyl]-, iodide (1:1) (CA INDEX NAME)



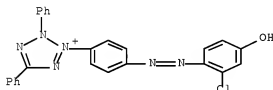
RN 118951-88-5 CAPLUS

CN 2H-Tetrazolium, 3-[4-[2-(4-chlorophenyl)diazenyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



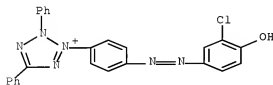
RN 121655-17-2 CAPLUS

CN 2H-Tetrazolium, 3-[4-[2-(2-chloro-4-hydroxyphenyl)diazenyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



RN 121655-52-5 CAPLUS

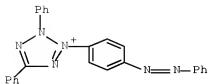
CN 2H-Tetrazolium, 3-[4-[2-(3-chloro-4-hydroxyphenyl)diazenyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



RN 122803-26-3 CAPLUS

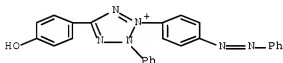
CN 2H-Tetrazolium, 2,5-diphenyl-3-[4-(2-phenyldiazenyl)phenyl]-, iodide (1:1)

(CA INDEX NAME)



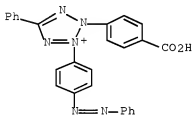
RN 122803-35-4 CAPLUS

CN 2H-Tetrazolium, 5-(4-hydroxyphenyl)-2-phenyl-3-[4-(2-phenyldiazenyl)phenyl]-, chloride (1:1) (CA INDEX NAME)



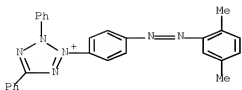
RN 124202-33-1 CAPLUS

CN 2H-Tetrazolium, 2-(4-carboxyphenyl)-5-phenyl-3-[4-(2-phenyldiazenyl)phenyl]-, chloride (1:1) (CA INDEX NAME)



RN 860224-83-5 CAPLUS

CN 2H-Tetrazolium, 3-[4-(2-(2,5-dimethylphenyl)diazenyl)phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



● Cl<sup>-</sup>

L3 ANSWER 8 OF 8 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1955:28154 CAPLUS [Full-text](#)

DOCUMENT NUMBER: 49:28154

ORIGINAL REFERENCE NO.: 49:5452d-i,5453a-e

TITLE: Tetrazolium compounds. II. Azo derivatives

AUTHOR(S): Libman, D. D.; Nineham, A. W.; Slack, R.

CORPORATE SOURCE: May & Baker, Essex, UK

SOURCE: Journal of the Chemical Society (1954) 1565-8

CODEN: JCSOA9; ISSN: 0368-1769

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

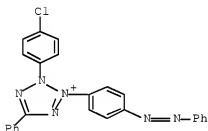
OTHER SOURCE(S): CASREACT 49:28154

GI For diagram(s), see printed CA Issue.

AB cf. C.A. 49, 3172c. A new series of formazans and corresponding tetrazolium salts is described. In each compound an N-Ph group bears a phenylazo substituent. 3-p-Aminophenyl-2,5-di-phenyl-2H-tetrazolium chloride (Ia) [previously prepared (loc. cit.)] showed slight activity against influenza A and Nigg mouse pneumonitis viruses; the 3-(phenylazophenyl) analogs of Ia were chosen for the present study. The synthetic methods employed are described in Part I (loc. cit.). Variants of I were prepared as follows: ring A by (1) coupling p-AcNHC6H4N2Cl with substituted benzene derivs., (2) coupling diazonium salts with PhNHCH2SO3Na, or (3) rearrangement of diazoamino compds. in the presence of PhNH2.HCl; ring B by application of the above methods to 1-ClOH7NH2 and p-xylylidine; R by the use of different aldehydes; and ring C by the use of substituted phenylhydrazines. Formazans, RNHN: CR'N:NR''; Number, R, R', R'', Yield, %, M.p. °C.; 1, Ph, Ph, p-PhN:NC6H4, 50, 182\*; 2, Ph, Me p-PhN:NC6H4, 28, 115; 3, Ph, Ph, p-(p-MeC6H4N:N)C6H4, 53, 186-8; 4, Ph, Ph, p-(p-ClC6H4N:N)C6H4, 11.5, 194.5-5; 5, Ph, Ph, p-(p-O2NC6H4N:N)C6H4, 57, 205-6\*; 6, Ph, Ph, p-(p-HOC6H4N:N)C6H4, 28, 198-200; 7, Ph, Ph, p-[2,4-Cl(HO)C6H3N:N], C6H4, 27, 149-50; 8, Ph, Ph, p-[3,4-Cl(HO)C6H3N:N], C6H4, 8, 205-10; 9, Ph, Ph, 4, 1-PhN:NC10H6, 200; 10, Ph, p-HOC6H4, p-PhN:NC6H4, 50, 180; 11, Ph, Ph, 2, 5, 4-Me2(PhN:N)C6H2, 50, 197\*; 12, p-HO2CC6H4, Ph, p-PhN:NC6H4, 10, 209; 13, p-ClC6H4, Ph, p-PhN:NC6H4, 18, 168-70; 14, p-AcNHC6H4, Ph, p-PhN:NC6H4, 26, 215; 15, Ph, -[CH2]2-, p-PhN:NC6H4, 29 136-8; 16, Ph, -[CH2]6-, p-PhN:NC6H4, 39, 161-2\*; 17, Ph, Ph, p-(p-AcNHC6H4N:N)C6H4, 35, 216; 18, Ph, Ph, p-(p-Me2NC6H4N:N)C6H4, 23 182; 19, p-AcNHC6H4, p-AcNHC6H4, p-(p-HOC6H4N:N)C6H4, small, 188; 20, Ph, Ph, 2, 5- dimethyl-4-(2-thiazolylazo)phenyl, 25, 216[\*]; 21, Ph, p-AeOC6H4, p- PhN:NC6H4, 50, 191;\* With decompose; Corresponding; Number\*, Yield, %, X, Method of oxidation, M.p. (°C).dag.; 1, 24, I, B, 231-2; 2, -, I, B, 127-9; 3, 36, I, A, 175-7; 4, 72, Cl, A, 184-5; 5, 45, Cl, B, 250; 6, 70, Cl, C, 230; 7, 26, Cl, C, 204-5; 8, 53, Cl, C, 206-7; 9, 48, I, B, 280; 10, 97, Cl, C, 267; 11, 54, Cl, A, 41; 12, 48, Cl, A, 264; 13, 33, I, B, 219; 14, 40, I, B, 258; 15, 69, I, B, 185-6; 16, 24, I, A, 169-70; Methods of oxidation: A, HgO in MeOH; B, Pb(OAc)4 in CHCl3; C, iso-AmONO and HCl. \*These compds. have the same R, R', and R'' as the formazans of corresponding number in preceding table. .dag. With decomposition, except Number 13. p-AcOC6H4CH:NNHPh, 95% from

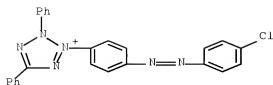
alc., m. 154°. p-AcNHC6H4NHNH2.SnCl4 (100 g.) and 100 g. AcONa in 1 l. hot water heated with 33 g. p-AcNHC6H4CHO in aqueous MeOH 30 min. at 95° gave the phenylhydrazone, m. 233°. Diazotized p-AcNHC6H4NH2 coupled with o-ClC6H4OH and product hydrolyzed with HCl gave 2,4-Cl(p-H2NC6H4N:N)C6H3OH (51%), m. 186-7°. 4-p-Aminophenylazo-3-chlorophenol, prepared in the same way (83%), m. 165°; N-acetyl derivative, m. 213-15°. 2-(p-Aminophenylazo)thiazole, m. 188-9°, was prepared by coupling diazotized 2-aminothiazole with PhNHCH2SO3Na and hydrolyzing the product with hot 50% NaOH; N-Ac derivative, m. 231°. 2,5-Dimethyl-4-(2-thiazolylo)aniline (28%) m. 158°; N-Ac derivative, m. 187°. 4-(2-Thiazolylo)-1-naphthylamine (60%) m. 195°; N-Ac derivative (60%), m. 236°.

- IT 118951-83-0P, Tetrazolium, 2-(p-chlorophenyl)-5-phenyl-3-(p-phenylazophenyl)-2H-, iodide 118951-88-5P, Tetrazolium, 3-[p-(p-chlorophenylazo)phenyl]-2,5-diphenyl-2H-, chloride 121655-17-2P, Tetrazolium, 3-[p-(2-chloro-4-hydroxyphenylazo)phenyl]-2,5-diphenyl-2H-, chloride 121655-52-5P, Tetrazolium, 3-[p-(3-chloro-4-hydroxyphenylazo)phenyl]-2,5-diphenyl-2H-, chloride 122803-26-3P, Tetrazolium, 2,5-diphenyl-3-(p-phenylazophenyl)-2H-, iodide 122803-35-4P, Tetrazolium, 5-(p-hydroxyphenyl)-2-phenyl-3-(p-phenylazophenyl)-2H-, chloride 124202-33-1P, Tetrazolium, 2-(p-carboxyphenyl)-5-phenyl-3-(p-phenylazophenyl)-2H-, chloride 357746-42-0P, Tetrazolium, 3-[p-(3-chloro-4-hydroxyphenylazo)phenyl]-2,5-diphenyl-2H-, compound with EtOH 857746-51-1P, Tetrazolium, 2,5-diphenyl-3-[p-(p-tolylazo)phenyl]-2H-, iodide 857746-58-8P, Tetrazolium, 2,5-diphenyl-3-(4-phenylazo-2,5-xyllyl)-2H-, chloride 857750-06-2P, Tetrazolium, 2-(p-acetamidophenyl)-5-phenyl-3-(p-phenylazophenyl)-2H-, iodide  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 118951-83-0 CAPLUS  
 CN 2H-Tetrazolium, 2-(4-chlorophenyl)-5-phenyl-3-[4-(2-phenyldiazanyl)phenyl]-, iodide (1:1) (CA INDEX NAME)



● I<sup>-</sup>

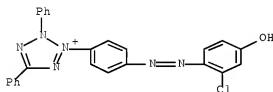
- RN 118951-88-5 CAPLUS  
 CN 2H-Tetrazolium, 3-[4-[2-(4-chlorophenyl)diazanyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 121655-17-2 CAPLUS

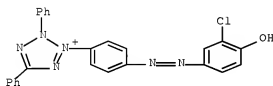
CN 2H-Tetrazolium, 3-[4-[2-(2-chloro-4-hydroxyphenyl)diazenyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



● Cl<sup>-</sup>

RN 121655-52-5 CAPLUS

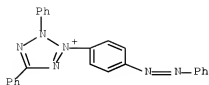
CN 2H-Tetrazolium, 3-[4-[2-(3-chloro-4-hydroxyphenyl)diazenyl]phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



● Cl<sup>-</sup>

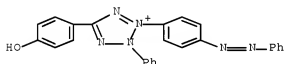
RN 122803-26-3 CAPLUS

CN 2H-Tetrazolium, 2,5-diphenyl-3-[4-(2-phenyldiazenyl)phenyl]-, iodide (1:1) (CA INDEX NAME)



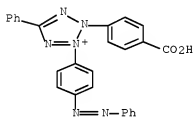
RN 122803-35-4 CAPLUS

CN 2H-Tetrazolium, 5-(4-hydroxyphenyl)-2-phenyl-3-[4-(2-phenyldiazenylphenyl)phenyl]-, chloride (1:1) (CA INDEX NAME)



RN 124202-33-1 CAPLUS

CN 2H-Tetrazolium, 2-(4-carboxyphenyl)-5-phenyl-3-[4-(2-phenyldiazenylphenyl)phenyl]-, chloride (1:1) (CA INDEX NAME)



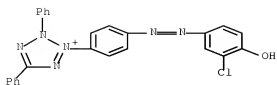
RN 857746-42-0 CAPLUS

CN 2H-Tetrazolium, 3-[4-[2-(3-chloro-4-hydroxyphenyl)diazenyl]phenyl]-2,5-diphenyl-, compd. with ethanol (1:1) (CA INDEX NAME)

CM 1

CRN 807299-17-8

CMF C25 H18 Cl N6 O



CM 2

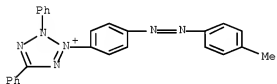
CRN 64-17-5

CMF C2 H6 O



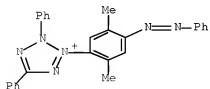
RN 857746-51-1 CAPLUS

CN 2H-Tetrazolium, 3-[4-{2-(4-methylphenyl)diazenyl}phenyl]-2,5-diphenyl-, iodide (1:1) (CA INDEX NAME)



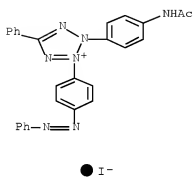
RN 857746-58-8 CAPLUS

CN 2H-Tetrazolium, 3-[2,5-dimethyl-4-(2-phenyldiazenyl)phenyl]-2,5-diphenyl-, chloride (1:1) (CA INDEX NAME)



RN 857750-06-2 CAPLUS

CN 2H-Tetrazolium, 2-[4-(acetylamino)phenyl]-5-phenyl-3-[4-(2-phenyldiazenyl)phenyl]-, iodide (1:1) (CA INDEX NAME)



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ALL L# QUERIES AND ANSWER SETS ARE DELETED AT LOGOFF

LOGOFF? (Y)/N/HOLD:y

STN INTERNATIONAL LOGOFF AT 08:02:11 ON 07 OCT 2008